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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/179,390	07/24/2008	David Scott Kinney	08-0192-US-NP	8051
63759	7590	06/19/2017	EXAMINER	
DUKE W. YEE YEE & ASSOCIATES, P.C. P.O. BOX 802333 DALLAS, TX 75380			KING, RODNEY P	
			ART UNIT	PAPER NUMBER
			3665	
			NOTIFICATION DATE	DELIVERY MODE
			06/19/2017	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAVID SCOTT KINNEY, JAMES L. MILLAR,
JOHN BARTHOLOMEW MAGGIORE, SEAN ALLEN NEWSUM, and
STEVEN C. RUNO

Appeal 2014-004971¹
Application 12/179,390²
Technology Center 3600

Before STEFAN STAICOVICI, BRANDON J. WARNER, and
BRADLEY B. BAYAT, *Administrative Patent Judges*.

BAYAT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's decision rejecting claims 1–17 and 19–24, which are all the pending claims in the application. We have jurisdiction under 35 U.S.C. § 6(b).

¹ Our decision references Appellants' Appeal Brief ("App. Br.," filed Oct. 16, 2013), Reply Brief ("Reply Br.," filed Mar. 18, 2014), and Specification ("Spec.," filed July 24, 2008), as well as the Examiner's Answer ("Ans.," mailed Jan. 31, 2014), and the Final Office Action ("Final Act.," mailed May 23, 2013).

² Appellants identify "The Boeing Company" as the real party in interest. App. Br. 2.

SUMMARY OF THE DECISION

We REVERSE and enter a NEW GROUND of rejection pursuant to our authority under 37 C.F.R. § 41.50(b).

CLAIMED SUBJECT MATTER

Appellants' claimed subject matter "relates generally to an improved data processing system and in particular to a method and apparatus for processing data." Spec. ¶ 1.

Claims 1, 9, 17, and 22 are the independent claims on appeal. Independent claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. A computer implemented method for automatically obtaining vehicle data, the computer implemented method comprising:

[(a)] monitoring a vehicle for events over a wireless interface on a vehicle monitoring system remote from the vehicle;

[(b)] responsive to receiving an event sent over the wireless interface by the vehicle, determining on the vehicle monitoring system whether vehicle data is needed for the event based on a policy, wherein the vehicle data comprises data in addition to the event, the policy including at least a set of rules or data used to identify whether additional data is required to process the event;

[(c)] responsive to a determination that the vehicle data is needed, sending a request from the vehicle monitoring system for the vehicle data over the wireless interface to the vehicle;

[(d)] responsive to receiving the request by the vehicle, transmitting the vehicle data by the vehicle to the vehicle monitoring system;

[(e)] responsive to receiving the vehicle data over the wireless interface at the vehicle monitoring system from the vehicle, storing the vehicle data; and

[(f)] analyzing on the vehicle monitoring system the vehicle data stored after receiving the vehicle data from the vehicle to form an analysis.

App. Br. 22, Claims Appendix (with added bracketed notations).

REJECTIONS

- I. Claims 1–6, 8, 9, 13–15, 17, 19, 21, and 22 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Qiao (US 2005/0027480 A1, pub. Feb. 3, 2005).
- II. Claim 7 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Qiao and Breed (US 2007/0005202 A1, pub. Jan. 4, 2007).
- III. Claim 24 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Qiao and Smith (US 2005/0288832 A1, pub. Dec. 29, 2005).
- IV. Claims 10–12 and 20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Qiao and Dell’ Eva (US 2005/0102080 A1, pub. May 12, 2005).
- V. Claim 16 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Qiao, Dell’ Eva, and Stefani (US 2005/0149238 A1, pub. July 7, 2005).
- VI. Claim 23 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Qiao and Stefani.

See Final Act. 4–18.

ANALYSIS

Rejection I

In rejecting independent claim 1, the Examiner cites paragraphs 32 and 33 of Qiao as disclosing process steps (c) “responsive to a determination that the vehicle data is needed, sending a request from the vehicle monitoring system for the vehicle data over the wireless interface to the vehicle;” and (d) “responsive to receiving the request by the vehicle, transmitting the vehicle data by the vehicle to the vehicle monitoring system.” *See* Final Act. 5.

In response to Appellants’ arguments that Qiao does not teach or suggest steps (c) and (d) of claim 1 (App. Br. 15–16), the Examiner modifies his position from the rejection and asserts:

Although “sending a request for additional information” and “transmitting vehicle data” is not explicitly stated in Qiao et al. reference, Examiner’s position is that some sort of request or command has to be *inherently* performed in order for data to be received by the central knowledge facility, and the agents of Qiao et al. *inherently* do not remotely send out data voluntarily unless requested to do so.

Ans. 5 (emphasis added).

Responding to the Examiner’s assertion, Appellants argue:

The Examiner has failed to meet his burden of establishing inherency of the above features because alternative possible mechanisms exist to “sending a request” and “transmitting the vehicle data” other than those that would read on the features of the independent claims. For an example that would disembowel the Examiner’s inherency argument with respect to “sending a request,” a request does not have to be sent from the vehicle monitoring system remote from the vehicle to the vehicle in order for the vehicle data to get to the vehicle monitoring system remote from the vehicle.

Reply Br. 4–5.

Appellants' arguments are persuasive because the Examiner's reliance on the theory of inherency is unsupported by the teachings of Qiao.

Qiao is directed to a diagnosis system that utilizes a plurality of intelligent agents arranged in physically hierarchical layers so tasks associated with accomplishing model based diagnosis are distributed amongst the intelligent agents, wherein information gathered from a first lower level intelligent agent is processed by at least one other higher level to realize system fault diagnosis. Qiao, Abstract. Paragraph 32 of Qiao discloses that, upon receiving the second level of diagnostic information from a middle level agent 18, the high level intelligent agent 20 performs a third level of diagnostic tasks by analyzing the second level information relative to reference information stored within the high level agent 20 and/or expert information obtained remotely via a wireless communications link with a central knowledge facility 30 to accomplish fault isolation. Central knowledge facility 30 may perform diagnostic analysis and the determined diagnostic information is transmitted back to the high level agent 20 and stored as a references model/information for future diagnostic episodes. *Id.* ¶ 33.

Although Qiao's remote system 30 is capable of communicating with the vehicle's intelligent agent 20, that fact is not sufficient to establish inherency here because process steps (c) and (d) are recited as being performed in relation to and in sequence with each other. To establish inherency, there must be a "basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (BPAI 1990). The "Examiner's

position [] that some sort of request or command has to be inherently performed in order for data to be received by the central knowledge facility” (Ans. 5) does not provide a basis in fact or technical reasoning to reasonably support the determination that the allegedly inherent claim steps *necessarily* flow from the teachings of Qiao. As Appellants correctly point out, as discussed *supra*, a request does not necessarily have to be sent to the vehicle for vehicle information to be transmitted to the remote system. For example, vehicle data may be transmitted to the remote system on a predetermined periodic basis without any request for data from the remote system. Although the Examiner’s position may find support as part of an obviousness rationale, there is no basis in fact that Qiao’s system *necessarily* performs method steps (c) and (d) as recited in claim 1. Because the Examiner has not met the initial duty of supplying a factual basis for supporting the proffered inherency position, and the proposed modification of Qiao’s system does not remedy the deficiency of Qiao discussed *supra*, we do not sustain the rejection of independent claim 1.

Appellants rely on arguments presented above against the rejection of claim 1 in refuting the Examiner’s findings for similar limitations recited in independent claims 9, 17, and 22. App. Br. 16–17. Because the Examiner relies on the same inherency theory in maintaining the rejection of these independent claims, we also do not sustain the rejection of claims 9, 17, and 22. For the same reasons, we do not sustain the rejection of claims 2–6, 8, 13–15, 19, and 21 dependent therefrom *Cf. In re Fritch*, 972 F.2d 1260, 1266 (Fed. Cir. 1992) (“dependent claims are nonobvious if the independent claims from which they depend are nonobvious”).

Rejections II–VI

Claims 7, 10–12, 16, 20, 23, and 24 depend, either directly or indirectly, from independent claims 1, 9, and 17. The Examiner’s use of the additional prior art references in Rejections II–VI does not remedy the deficiencies of Qiao discussed above. Thus, we also do not sustain the rejections of dependent claims 7, 10–12, 16, 20, 23, and 24.

*New Ground of Rejection—Patent-Ineligible Subject Matter
Claims 1–16, 23, and 24*

Section 101 of the Patent Act defines patent-eligible subject matter: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.” 35 U.S.C. § 101. In interpreting this statutory provision, the Supreme Court has held that its broad language is subject to an implicit exception for “laws of nature, natural phenomena, and abstract ideas,” which are not patentable. *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2355 (2014).

To determine whether a claim is patent ineligible under § 101, the Supreme Court has established a two-step framework: First, we must “determine whether the claims at issue are directed to a patent-ineligible concept.” *Alice*, 134 S. Ct. at 2355. Second, if the claims are directed to patent ineligible subject matter, we must “consider the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a

patent-eligible application.” *Id.* (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1298 (2012)).

In identifying the abstract idea, we must evaluate “the ‘focus of the claimed advance over the prior art’ to determine if the claim’s ‘character as a whole’ is directed to excluded subject matter.” *Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016). If so, we proceed to the second step of the *Alice* inquiry. For that step we must “look with more specificity at what the claim elements add, in order to determine ‘whether they identify an “inventive concept” in the application of the ineligible subject matter’ to which the claim is directed.” *Id.* at 1258 (quoting *Elec. Power Grp. v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016)).

Applying the framework in *Alice*, and as the first step of that analysis, we determine that representative claim 1 is directed to an abstract idea. The preamble of claim 1 recites “[a] computer implemented method for automatically obtaining vehicle data.” Claim 1 merely recites familiar concepts of obtaining and analyzing data. *See* Spec. ¶ 1 (the disclosure relates to a computer implemented method, apparatus, and computer usable program code for processing and obtaining vehicle data.). The implementation of the abstract idea is recited in the steps of claim 1. As explained in a number of cases, claims involving data collection and analysis are directed to an abstract idea. *Elec. Power*, 830 F.3d at 1353 (holding that “collecting information, analyzing it, and displaying certain results of the collection and analysis” are “a familiar class of claims ‘directed to’ a patent-ineligible concept”); *see also In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 611 (Fed. Cir. 2016); *FairWarning IP, LLC v. Iatric Sys., Inc.*, 839 F.3d 1089, 1093–94 (Fed. Cir. 2016); and *Content Extraction &*

Transmission v. Wells Fargo Bank, N.A., 776 F.3d 1343 (Fed. Cir. 2014) (abstract idea of collecting data from hard-copy documents, recognizing certain information within the collected data, and storing that information in memory).

It is also telling that the background of Appellants' Specification indicates that "[c]urrently, an operator may select data and events that an aircraft health monitoring system may use to generate reports." Spec. ¶ 3; *see also id.* ¶ 35 ("Currently, the data that is downloaded from an aircraft may be a set of predefined reports that are generated automatically in response to an event that is detected by the aircraft data processing system."). The advance noted by Appellants by automatically obtaining data is "minimiz[ing] the possibility that transient data located on aircraft 116 may be lost or no longer exist." *Id.* at ¶ 22; *see also id.* at ¶ 63 ("the different advantageous embodiments provide a capability to obtain data that may be lost using currently employed methods to provide a better analysis. The different advantageous embodiments also provide a capability to automatically identify vehicle data that is needed.").

Claim 1 however, unlike the claims found non-abstract in prior cases, uses generic computer technology to automatically collect and analyze data, and does not recite an improvement to a particular computer technology. *See, e.g., McRO, Inc. v. Bandai Namco Games Am. Inc.*, 837 F.3d 1299, 1314–15 (Fed. Cir. 2016) (finding claims not abstract because they "focused on a specific asserted improvement in computer animation"). Assessing the character as a whole, claim 1 is directed to facilitating the automatic collection, storage, and analysis of diagnostic information or data. The claim is not directed to anything more technically specific—the claim does

not focus on or provide technical detail about structures that must be used to perform the claimed functions. Instead, the claim focuses on the high-level functions of obtaining and analyzing data. This focus is an abstract idea.

Turning to the second step, claim 1 does not contain an inventive concept sufficient to “‘transform the nature of the claim’ into a patent-eligible application.” *Alice*, 134 S. Ct. at 2355 (citations omitted)(internal quotation marks omitted). The introduction of a computer into the claims does not alter the analysis here because

the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea “while adding the words ‘apply it’” is not enough for patent eligibility. Nor is limiting the use of an abstract idea “‘to a particular technological environment.’” Stating an abstract idea while adding the words “‘apply it with a computer’” simply combines those two steps, with the same deficient result. Thus, if a patent’s recitation of a computer amounts to a mere instruction to “‘implement[t]” an abstract idea “on . . . a computer,” that addition cannot impart patent eligibility. This conclusion accords with the preemption concern that undergirds our § 101 jurisprudence. Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of “‘additional feature[e]” that provides any “‘practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.”

Id. at 2358 (citations omitted). The relevant question is whether the claim here does more than simply instruct the practitioner to implement the abstract idea on a generic computer. *Id.* at 2359. We conclude that it does not.

Looking at the claim steps separately, the function performed by the computer at each step of the process is purely conventional. Using a computer to obtain and analyze data are the most basic functions of a

computer. Programming conventional software or hardware to apply rules and data is a routine and conventional practice. Claim 1 recites basic steps in data collection and analysis, or an abstract idea implemented on a computer. *See* Spec. ¶ 47 (“Vehicle monitoring system **304** may be a data processing system such as, for example, server **104**”). Accordingly, the recited claim limitations, both individually and as an ordered combination, fail to transform the nature of the claim into a patent-eligible application. Thus, independent claim 1 does not recite any limitation that, in practical terms, limits the scope of the claim so it does not fully cover the abstract idea itself.

For the foregoing reasons, we reject independent claim 1 and its dependent claims under 35 U.S.C. § 101. Independent claim 9 and its dependent claims recite a substantially similar process and are rejected under 35 U.S.C. § 101 for the same reasons.

Claims 17 and 19–22

A claim directed to an apparatus or computer recordable storage medium, despite its format, should be treated no differently from the comparable process claims held to be patent ineligible under § 101. As the Supreme Court has explained, the form of the claims should not trump basic issues of patentability. *See Parker v. Flook*, 98 S. Ct. 2522, 2527 (1978) (advising against a rigid reading of § 101 that “would make the determination of patentable subject matter depend simply on the draftsman’s art and would ill serve the principles underlying the prohibition against patents for ‘ideas’ or phenomena of nature.”); *see also Alice*, 134 S. Ct. at 2358–59. As such, independent claims 17 and 22, similar to independent claim 1, fail to satisfy the *Mayo/Alice* test. Therefore, we reject apparatus

claim 17³ and its dependents claims, and computer program product claim 22 under 35 U.S.C. § 101 for the same reasons discussed above.

DECISION

The Examiner's decision to reject claims 1–17 and 19–24 under 35 U.S.C. § 103 is REVERSED.

We enter a NEW GROUND of rejection of claims 1–17 and 19–24 under 35 U.S.C. § 101 pursuant to our authority under 37 C.F.R. § 41.50(b).

This decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides that “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the prosecution will be remanded to the examiner. . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

Should Appellants elect to prosecute further before the Examiner pursuant to 37 C.F.R. § 41.50(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to any affirmed rejection,

³ We note that apparatus claim 17 mirrors the method claims, reciting “a data processing system” as the sole structural limitation of the claim.

the effective date of the affirmance will be deferred until conclusion of the prosecution before the Examiner unless the affirmed rejection is overcome.

If Appellants elect prosecution before the Examiner and this does not result in allowance of the application, abandonment, or a second appeal, this case should be returned to the Patent Trial and Appeal Board for final action on the affirmed rejection, including any timely request for rehearing thereof.

REVERSED; 37 C.F.R. § 41.50(b)